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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

AUGHENBAUGH, WALTER

ART UNIT PAPER NUMBER

1772

DATE MAILED: 07/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/724,596

Applicant(s)PYNENBURG, RORY ALBERT
JAMES**Examiner**

Walter B. Aughenbaugh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2006 and 28 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 49,55,56 and 58-61 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 49,55,56 and 58-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 9, 2006 has been entered.

Acknowledgement of Applicant's Amendments

2. The amendments made in claims 49, 55 and 58-60 in the Amendment filed May 9, 2006 (Amdt. B) have been received and considered by Examiner.
3. The cancellation of claims 42, 54, 57 and 62-69 in Amdt. B has been acknowledged by Examiner.

Specification

4. The amendment filed May 9, 2006 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the recitation "about 30 μm thick" added to claim 60 in Amdt. B is not supported in the specification as originally filed.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it

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pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 60 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The recitation “about 30 μm thick” is not supported in the specification as originally filed.

Claim Rejections - 35 USC § 102

7. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

8. Claims 49, 59 and 61 are rejected under 35 U.S.C. 102(b) as being anticipated by Louie et al. (USPN 5,591,540).

In regard to claim 49, Louie et al. teach a laminate package for an energy storage device (col. 1, lines 5-10 and Fig. 3 and 4) having two terminals (items 34 and 36, col. 3, lines 21-24 and 54-67 and Fig. 1, 3 and 4). Louie et al. teach that the laminate package is formed from a single sheet of laminate material (item 12 or 28, Fig. 1). The recitation “that is folded along its length” in the recitation “being formed from a single sheet of laminate material that is folded along its length” has not been given patentable weight since the recitation “that is folded along its length” is not a positive limitation of the claimed final product since a step where “fold[ing]” occurs during the formation of the article falls within the scope of the claim (“being formed from... that is folded along its length”), and the claim does not require that any component of the claimed final product is in a folded configuration. Louie et al. teach that the laminate package includes an inner barrier layer for defining a cavity to contain the energy storage device (Fig. 3)

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having two opposed portions (corresponding to layer 25 at the top of Fig. 1 and layer 23 at the bottom of Fig. 1 which are coextruded with a polymer that serves as a vapor barrier, see col. 2, lines 31-41) that are sealingly engaged with each other and from between which the terminals extend from the cavity (col. 2, lines 31-50, col. 4, lines 16-48 and Fig. 1, 3 and 4). Louie et al. teach a sealant layer (polymer sealing strip, item 30) disposed intermediate the inner barrier layer (item 25 or 23) and at least one of the terminals for sealing the inner barrier layer to that one of the terminals and for offering a barrier to the passage of one or more contaminants into the cavity (see Fig. 1 and 3, for example, item 30 is between item 25, an inner barrier layer, and item 36, a terminal which is adjacent the sealant layer, item 30). Louie et al. teach an outer barrier layer (corresponding to either layer 23 or 27 at the top of Fig. 1 and either layer 25 or 27 at the bottom of Fig. 1- layers 23 and 25 are coextruded with a polymer that serves as a vapor barrier and layer 27 is polyvinylidene chloride, which is a vapor barrier, see col. 2, lines 31-44) that is bonded to the inner barrier layer (Fig. 1). Louie et al. teach that the package has a metal layer (metal foils 14 and 26, col. 2, lines 50-55).

In regard to claim 59, Louie et al. teach that the outer barrier layer (corresponding to either layer 23 or 27 at the top of Fig. 1 and either layer 25 or 27 at the bottom of Fig. 1) includes a plastics layer bonded to the outside of the metal layer (one of metal foils 14 and 26, col. 2, lines 50-55) because the outer barrier layer is a plastics layer (col. 2, lines 31-44 and Fig. 1).

In regard to claim 61, Louie et al. teach that the plastics layer includes polyvinylidene chloride or polypropylene (col. 2, lines 31-44).

Claim Rejections - 35 USC § 103

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claim 60 is rejected under 35 U.S.C. 103(a) as being unpatentable over Louie et al. (USPN 5,591,540).

Louie et al. fail to teach the claimed thickness of the plastics layer. Louie et al., however, teach that the packaging material must be flexible (col. 1, lines 35-37 and col. 4, lines 62-65), that the package is reduced in weight over prior art packages (col. 4, lines 49-51) and that one of skilled in the art knows the specific thicknesses required for the desired end result (col. 4, lines 59-62). Therefore, one of ordinary skill in the art would have recognized to have varied the thickness of the plastics layer to achieve the desired package flexibility and package weight depending on the desired end result as taught by Louie et al.

11. Claims 55, 56 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Louie et al. (USPN 5,591,540) in view of Sasaki et al. (USPN 6,277,516).

Louie et al. teach the package as discussed above.

In regard to claims 55 and 56, Louie et al. fail to teach that the sealant layer is a resin containing between about 5% and 10% ethylene acrylic acid or about 6% to 9% ethylene acrylic acid.

Sasaki et al. disclose a container (item 5) for an energy storage device having two terminals (corresponding to the leads labelled "3") (col. 8, lines 15-25 and col. 17, lines 34-44 and Fig. 8). Sasaki et al. disclose that a heat fusion bonding seal material is coated onto the leads (item 3) and covers the outer periphery of the lower and upper layers of the container, where the

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heat fusion bonding seal material coating on the leads is labelled “1” in Figure 8, and the periphery covered by the heat fusion bonding seal material is labelled “2” in Figure 8 (col. 17, lines 34-54). Sasaki et al. disclose that the heat fusion bonding seal material is ethylene acrylic acid copolymer, ethylene methacrylic acid copolymer, or combinations of these materials with any polyethylene resin (col. 9, lines 15-21, col. 19, lines 35-38 and 47-62 and col. 19, line 65-col. 20, line 27) and that the resulting resins absorb very small amounts of water. Therefore, one of ordinary skill in the art would have recognized to have used the mixture of ethylene acrylic acid copolymer and any polyethylene resin as the sealant of Louie et al., since a mixture of ethylene acrylic acid copolymer and any polyethylene resin is a suitable sealant material for use in containers of energy storage devices having terminals that absorb acceptable amounts of water as taught by Sasaki et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the mixture of ethylene acrylic acid copolymer and any polyethylene resin as the sealant of Louie et al., since a mixture of ethylene acrylic acid copolymer and any polyethylene resin is a suitable sealant material for use in containers of energy storage devices having terminals that absorb acceptable amounts of water as taught by Sasaki et al.

In regard to the claimed amount of ethylene acrylic acid of “between about 5% and 10%” as claimed in claim 55 and of “about 6% to 9%” as claimed in claim 56, since Sasaki et al. disclose that the heat fusion bonding seal material is ethylene acrylic acid copolymer, ethylene methacrylic acid copolymer, or combinations of these materials with any polyethylene resin (col. 9, lines 15-21, col. 19, lines 35-38 and 47-62 and col. 19, line 65-col. 20, line 27) and that the resulting resins absorb very small amounts of water, it would have been obvious to one of

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ordinary skill in the art at the time the invention was made to have determined the relative amounts of ethylene acrylic acid in the mixture of ethylene acrylic acid copolymer and any polyethylene resin of Sasaki et al. required to achieve the optimal sealing and water absorption properties depending on the particular desired end result.

In regard to claim 58, Louie et al. fail to explicitly teach that the terminals are formed from aluminum. Sasaki et al., however, disclose a container (item 5) for an energy storage device having two terminals (corresponding to the leads labelled “3”) (col. 8, lines 15-25 and col. 17, lines 34-44 and Fig. 8) Sasaki et al. teach that aluminum is a well known material for use as a positive electrode current collector (col. 3, lines 4-6). Therefore, one of ordinary skill in the art would have recognized to have used aluminum as the material of the terminals of Louie et al. since aluminum is a well known material for use as a positive electrode current collector as taught by Sasaki et al.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have used aluminum as the material of the terminals of Louie et al. since aluminum is a well known material for use as a positive electrode current collector as taught by Sasaki et al.

Response to Arguments

12. Applicant's arguments presented on page 4 of Amdt. B regarding the new matter objection and rejection of claim 60 have been fully considered but are not persuasive. Applicant cites pages 13-15 of the specification for support, but support for the recitation “about 30 μm thick” cannot be located in this portion of the specification. Clarification is requested since the specification as originally filed does not have a page 15.

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13. Applicant's arguments presented on pages 4-5 of Amdt. B regarding the 35 U.S.C. 102 rejection of claim 49 have been fully considered but are not persuasive. Applicant's arguments are moot due to the new 35 U.S.C. 102 rejection of claim 49 made of record in this Office Action.

14. Applicant's arguments presented on pages 5-6 of Amdt. B regarding the 35 U.S.C. 103 rejections have been fully considered but are not persuasive. Applicant's arguments are moot due to the new 35 U.S.C. 103 rejections made of record in this Office Action.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter B. Aughenbaugh whose telephone number is 571-272-1488. While the examiner sets his work schedule under the Increased Flexitime Policy, he can normally be reached on Monday-Friday from 8:45am to 5:15pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is to 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Walter B. Aughenbaugh
07/20/06

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JENNIFER C. MCNEIL
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